NASA Procedural Requirements

COMPLIANCE IS MANDATORY

NPR 8715.5A
Effective Date:
September 17, 2010
Expiration Date:
September 17, 2015

Printable Format (PDF)

Request Notification of Change (NASA Only)

Subject: Range Flight Safety Program

Responsible Office: Office of Safety and Mission Assurance

Chapter 1. Program Overview

1.1 Introduction

NASA operates and uses ranges for the purpose of launching, flying, landing, and testing space and aeronautical vehicles and associated technologies. These activities, referred to in this NPR as “range operations,” often present hazards which can pose significant risk to life and property. (See Appendix A for a detailed definition of “range operations.”) This NPR defines the Agency Range Flight Safety Program for protecting the public, the workforce, and property during range operations associated with flight.

1.2 Range Flight Safety Policy

1.2.1 It is NASA policy to mitigate and control hazards and risks associated with range operations in accordance with the requirements contained in this NPR.

1.2.2 It is NASA policy to apply range safety techniques to range flight operations in the following order of precedence:

a. Apply containment to preclude hazards (such as debris, distant focusing overpressure, and toxic material release resulting from planned and unplanned events) from reaching the public, the workforce, or property that requires protection.

> *Note: Containment for the purposes of range safety is defined in Appendix A, and related requirements are in paragraph 3.2.9 of this NPR. Local authorities and programs are responsible for identifying property that requires protection per paragraph 3.2.4.3.b of this NPR.*

b. Apply the risk management process of paragraph 3.2.4 of this NPR when the hazards

associated with a range operation cannot be fully contained.

1.3 Roles and Responsibilities

Note: The NASA Administrator and senior Agency management roles and responsibilities regarding risk acceptance, including public risk acceptance, are described in NPD 8700.1, NASA Policy for Safety and Mission Success and apply to NASA range operations.

1.3.1 NASA Chief, Safety and Mission Assurance. The NASA Chief, Safety and Mission Assurance or NASA designee shall:

a. Approve and promulgate Agency-level range safety policies and requirements (Requirement).

b. Oversee and provide funding for administration of the Agency Range Flight Safety Program (Requirement).

c. Formally designate the NASA Range Safety Manager (see paragraph 1.3.2 of this NPR) (Requirement).

d. Resolve any conflicts associated with the Agency Range Flight Safety Program that have not been resolved at the program or Center level (Requirement).

1.3.2 NASA Range Safety Manager. The NASA Range Safety Manager shall perform the following Headquarters-level functions:

a. Develop, coordinate, and update Agency range safety policy, including this NPR (Requirement).

Note: As a minimum, the NASA Range Safety Manager will lead the review and update of this NPR on the general five-year cycle. The Chief, Safety and Mission Assurance will determine the need for any interim updates.

b. Serve as the Agency focal point for all matters involving range safety (Requirement).

c. Lead a team of Range Safety Representatives (see paragraph 1.3.5) to evaluate and resolve range safety program concerns and ensure consistent implementation of range safety requirements throughout the Agency (Requirement).

d. Participate as an element of the NASA Headquarters Safety and Mission Assurance Audits, Reviews, and Assessments program defined by NPR 8705.6 and support Inter-center Aircraft Operations Panel reviews as defined by NPR 7900.3 for the area of range safety (Requirement).

e. Participate in panels, joint working groups, and other range safety policy initiation and change activities that affect NASA operations and/or use of ranges (Requirement).

f. Coordinate activities and actions with NASA Center range safety personnel and other entities, including the FAA and DoD, to formulate, recommend, and evaluate policies, procedures, and standards and to ensure that NASA programs and Centers use range safety practices that are consistent with applicable laws, national standards, and NASA requirements (Requirement).

g. Provide NASA programs with sources of range safety expertise to support independent process reviews, flight readiness reviews, and other safety reviews

(Requirement).

h. Provide input and recommendations to NASA Headquarters Office of Safety and Mission Assurance (OSMA) and other authorities (including designated SMA Technical Authorities) during review and approval processes when range safety requirements are a consideration (Requirement).

Note: SMA Technical Authority and associated responsibilities are defined in NPR 7120.5, NASA Space Flight Program and Project Management Requirements.

i. Establish and maintain a range safety training program (Requirement).

j. Facilitate the development of tools for assessing range safety risks (Requirement).

k. For each NASA range operation that is not supported by a Center range safety organization, evaluate tailoring, requests for Equivalent Level of Safety (ELS) determinations, and Range Safety Waivers and coordinate with the approval authorities per paragraph 1.4, 1.5, and 1.6 of this NPR (Requirement).

l. For each vehicle program that is not supported by a Center range safety organization, evaluate the program's range safety risk management process per paragraph 3.2.4 of this NPR and coordinate with the approval authorities (Requirement).

m. Generate NASA range safety annual reports for OSMA (Requirement).

n. Ensure NASA range flight safety functions are performed for all NASA range operations. For each vehicle program that is not supported by a Center range safety organization, this includes, but is not limited to, monitoring of vehicle operations and range processes to ensure timely identification and resolution of any violation that might affect operational approval (Requirement).

o. Coordinate with OSMA in annual planning of Agency Range Flight Safety Program activities and budget (Requirement).

1.3.3 Center Directors.

1.3.3.1 Each Center Director (or NASA designee) shall:

a. Ensure the implementation of this NPR for each Center program that involves range operations (Requirement).

b. Designate a Center Range Safety Representative (see paragraph 1.3.5) (Requirement).

c. Ensure coordination with all organizations that support a program's range operations (Requirement).

Note: For additional Center Director responsibilities regarding Range Safety Waivers, see paragraph 1.6.5.

1.3.3.2. When functioning as the authority for a range, launch site (fixed or mobile), or landing site (including any airfield used for range operations) or when onsite personnel are affected by range operations, the Center Director or NASA designee shall:

a. Establish the processes and associated Center-level requirements needed to ensure the requirements of this NPR are satisfied, including the risk management process of paragraph 3.2.4 of this NPR (Requirement).

b. Ensure all employees and visitors are informed of potential hazards associated with a range operation and the actions to take in the event of an emergency (Requirement).

c. Support and ensure that the Certificate of Flight Readiness or equivalent review process includes range safety considerations (Requirement).

d. Support development of emergency response plans and ensure coordination with appropriate emergency response agencies to prevent or mitigate the exposure of the public or workforce to any hazard associated with a range operation (Requirement).

Note: NPD 8710.1, NASA Emergency Preparedness Program, and NPR 8715.2, NASA Emergency Preparedness Plan Procedural Requirements, apply with regard to emergency preparedness.

e. Approve the categorization of people located on NASA property as Mission Essential Personnel, Critical Operations Personnel, or public/visitors for the purposes of risk management (Requirement).

f. Approve each vehicle program's range safety risk management process per paragraph 3.2.4 of this NPR (Requirement).

1.3.3.3 When functioning as the safety authority for range operations, the Center Director or NASA designee shall designate a Center range safety organization that satisfies paragraph 1.3.4 of this NPR (Requirement).

1.3.4 Center Range Safety Organization. The Center range safety organization lead or NASA designee shall:

a. Report to the Center Director or NASA designee on all range safety concerns and ensure the implementation of this NPR and associated Center-level processes and requirements (Requirement).

b. Identify program data requirements and perform or evaluate and approve required range safety analysis (Requirement).

c. Evaluate and approve all range safety systems (Requirement).

d. Ensure that personnel performing range safety functions have the qualifications and training that satisfy paragraph 3.8 of this NPR (including Range Safety Officers (RSOs) and personnel responsible for range safety systems and range safety analysis) appropriate to the types of vehicles and range operations (Requirement).

e. Ensure the operational performance requirements and standards for all range safety systems satisfy paragraph 3.3 of this NPR (Requirement).

f. Ensure the readiness of the range safety systems to support each operation (example: conduct and/or participate in pre-operation functional tests and system checks on the day of the operation) (Requirement).

g. Coordinate with maritime, aviation, and other authorities to ensure all range safety requirements are satisfied for all range operations (Requirement).

h. Evaluate tailoring and requests for ELS determinations and Range Safety Waivers and coordinate these with the approval authorities per paragraphs 1.4, 1.5, and 1.6 of this NPR (Requirement).

i. Evaluate each vehicle program's range safety risk management process per paragraph 3.2.4 of this NPR and coordinate this with the approval authorities (Requirement).

j. Provide operational support for range operations. This includes monitoring vehicle operations and range processes to ensure timely identification and resolution of any violation of range safety requirements (Requirement).

k. Designate a qualified RSO or equivalent for each NASA mission that involves range operations (see paragraph 1.3.7 of this NPR for RSO responsibilities) (Requirement).

1.3.5 Range Safety Representative.

1.3.5.1 A Range Safety Representative may represent a Center, vehicle program, or both.

1.3.5.2 Each Range Safety Representative shall:

a. Monitor the Center and/or vehicle program implementation of this NPR (Requirement).

b. Keep the NASA Range Safety Manager advised of activities related to range safety (Requirement).

c. Provide the NASA Range Safety Manager with an annual summary of all range safety activities associated with each program where applicable (Requirement).

d. Lead and/or participate in range safety activities as designated by the Center Director or vehicle program manager (Requirement).

e. Coordinate tailoring per paragraph 1.4 and any requests for ELS determinations and Range Safety Waivers per paragraphs 1.5 and 1.6 of this NPR.

f. Brief the Center Director, vehicle program manager, and/or other cognizant managers on pertinent range safety requirements contained in this NPR and on proper implementation (Requirement).

1.3.6 NASA Vehicle Program Manager. For each range operation, the NASA vehicle program manager or NASA designee shall:

a. Ensure the requirements of this NPR and the requirements of each range, launch site, or landing site that support the range operation are satisfied, including the risk management process of paragraph 3.2.4 of this NPR (Requirement).

b. Coordinate all risk management efforts with all cognizant range safety organizations and the authority for any range, launch site, or landing site that support the range operation (Requirement).

c. Coordinate with all cognizant range safety organizations and Center/Program Range Safety Representative(s) to develop and implement operational range safety requirements, plans, procedures, and checklists, including mission rules and launch/flight commit criteria (see paragraph 3.4 of this NPR for operational requirements) (Requirement).

d. Designate a Range Safety Representative for the vehicle program (see paragraph 1.3.5) (Requirement).

e. Involve range safety personnel throughout all pertinent vehicle and payload reviews and during operations (Requirement).

f. Begin the range safety requirements tailoring process prior to the Systems Requirement Review (SRR) or equivalent initial review (Requirement).

g. Ensure adequate resources and data are provided to implement range safety requirements. (Requirement). This includes, but is not limited to:

(1) The design, test, and implementation of vehicle range safety systems (Requirement).

(2) The participation of all cognizant range safety organizations and authorities in the range safety review and approval process (Requirement).

(3) Operational support provided by all cognizant range safety organizations (Requirement).

h. Incorporate the requirements of this NPR in all contracts and agreements (Requirement).

i. Process tailoring, ELS determinations, and Range Safety Waivers in accordance with paragraphs 1.4, 1.5, and 1.6 of this NPR (Requirement).

j. Coordinate with all cognizant range safety organizations to generate a contingency action plan that satisfies NPR 8621.1, NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping (Requirement).

k. Coordinate with all cognizant range safety organizations and the emergency planning community to generate emergency response planning actions (including, but not limited to, Center or local safety office, emergency responders, local jurisdictions, and the cognizant NASA environmental management organization) (Requirement).

Note: NPD 8710.1, NASA Emergency Preparedness Program, and NPR 8715.2, NASA Emergency Preparedness Plan Procedural Requirements, apply with regard to emergency preparedness.

l. In coordination with the cognizant Center/range organization(s), ensure all employees and visitors are informed of potential hazards associated with a range operation and the actions to take in the event of an emergency (Requirement).

m. Ensure that employees whose duties involve the potential for exposure to hazardous materials are educated, at a minimum, in accordance with 29 CFR 1910.1200, Hazard Communication (Requirement). This includes awareness of propellant and explosive products and hazards and vapors, particulate matter, and airborne plumes applicable to range operations.

n. Provide all cognizant range safety organizations with all data pertinent to the range safety review and approval process (Requirement).

o. Engage the cognizant Center range safety organization or the NASA Range Safety Manager to establish a plan for monitoring of vehicle operations and range processes to ensure timely identification and resolution of any violation that might affect operational approval (Requirement).

p. Develop, document, and approve a range safety risk management process for the vehicle program that satisfies paragraph 3.2.4 of this NPR (Requirement).

(1) Review the process to ensure its validity for each range operation and update as

needed (Requirement).

(2) Coordinate the process documentation and any updates with the cognizant Center range safety organization or NASA Range Safety Manager and the Center/Program Range Safety Representative(s) prior to submittal for final approval (Requirement).

(3) If the vehicle operates at a NASA range, launch site, or landing site, obtain approval of the process (including any updates) by each cognizant NASA Center Director or NASA designee (Requirement).

(4) Obtain approval of the process documentation (including any updates) by the cognizant SMA Technical Authority(ies) (Requirement).

q. Ensure that any vehicle program personnel who perform a range safety function are qualified and trained in accordance with paragraph 3.8 of this NPR (Requirement).

Note: See paragraphs 1.4, 1.5, and 1.6 of this NPR for additional Vehicle Program Manager responsibilities regarding tailoring, ELS determination, and Range Safety Waiver processes.

1.3.7 Range Safety Officer (RSO) (or equivalent).

1.3.7.1 The RSO or equivalent for each NASA range operation shall be a qualified NASA or DoD employee or a person operating under an FAA license (see paragraph 3.8 of this NPR for applicable personnel qualification requirements) (Requirement).

1.3.7.2 The RSO or equivalent for each NASA range operation shall:

a. Undergo simulation scenarios that exercise hands-on operations of range safety systems, safety decision-making tools, and processes (including contingency actions) in conjunction with vehicle systems (Requirement).

b. Coordinate with the program to develop and implement operational range safety requirements, plans, procedures (including contingency plans and procedures), and checklists, including mission rules and launch/flight commit criteria (see paragraph 3.7 of this NPR for operational requirements) (Requirement).

Note: The contingency plans and procedures include actions to be taken if the RSO is suddenly unable to perform related real time duties (e.g., due to sudden illness).

c. Coordinate with the program and responsible approval authorities on tailoring, ELS determinations, and any Range Safety Waivers (Requirement).

d. Ensure that all range safety commit criteria are satisfied prior to initiating each phase of flight (see paragraph 3.2.4.3e. of this NPR regarding phases of flight) (Requirement).

1.3.7.3 For any vehicle that has a Flight Termination System (FTS), the RSO or equivalent shall:

a. Coordinate with the program to develop flight termination activation criteria (Requirement).

b. Perform real-time monitoring of the vehicle flight path/trajectory, vehicle systems, range safety systems, and the performance of the FTS (Requirement).

c. Make a flight termination decision when any aspect of the flight (including, but not limited to, vehicle or support system performance) violates preplanned termination

criteria (Requirement).

1.4 Range Safety Tailoring Process

1.4.1 The overall intent of the range safety requirements tailoring process is to ensure proper interpretation and implementation of range safety requirements while providing the Centers and program managers with the authority and flexibility needed to accomplish their tasks. For the purposes of the NASA Range Safety Program and this NPR, tailoring is defined as the process where the range user and the authorities responsible for the range safety requirements review each requirement and jointly document whether the requirement is applicable to the range user's operations and, if it is applicable, document whether the range user will meet the requirement as written or achieve an equivalent level of safety through an acceptable alternative.

Note: NASA actively participates with the national range safety community in order to effectively conduct NASA range operations. It is necessary for the NASA Range SafetyTailoring Process to be consistent with the approach used at the national ranges. Range safety tailoring may include ELS determinations (see paragraph 1.5 of this NPR). Range safety tailoring does not include the approval of Range Safety Waivers, which is handled in a separate process (i.e., tailoring does not incorporate the acceptance of increased safety risk). See paragraph 1.6 of this NPR.

1.4.2 Each vehicle program designated range safety representative and other applicable vehicle program personnel shall:

a. Work with the cognizant Center range safety organization, Center Range Safety Representative, or the NASA Range Safety Manager and all other involved range safety authorities (such as the Air Force) to identify and assess compliance with this NPR and other applicable range safety requirements (Requirement).

b. Tailor a set of program- or mission-specific range safety requirements (working directly with the cognizant Center range safety organization or NASA Range Safety Manager) and compile those requirements into a program- or mission-specific document (Requirement).

Note: Lessons Learned - Programs should not attempt to self-tailor or interpret range safety requirements without direct assistance from the cognizant Center range safety organization or the NASA Range Safety Manager. Attempting to self tailor range safety requirements may result in misinterpretation of the applicability of requirements and may lead to unnecessary schedule and cost impacts associate with late corrections.

c. Ensure that the document containing the tailored range safety requirements identifies any change to a requirement (including any addition or deletion) and includes sufficient rationale for the tailored change (Requirement).

1.4.3 The Center range safety organizations, the Range Safety Representatives, and the NASA Range Safety Manager shall coordinate as needed to allow for consistent application of range safety tailoring throughout the Agency (Requirement).

1.4.4 The signatories of each tailored requirements document shall include, but are not limited to the vehicle program manager (or designee) and the cognizant SMA Technical Authority(ies) after obtaining documented concurrence from the cognizant Center range safety organization or the NASA Range Safety Manager and any other authorities

responsible for issues addressed by the tailoring.

Note: The vehicle program should coordinate with the cognizant Center range safety organization or NASA Range Safety Manager when establishing the mission timeline/schedule to ensure that it incorporates sufficient time to complete the tailoring process and to implement the tailored requirements.

1.4.5 After approval, any further proposed change to the tailored requirements document shall be documented and distributed by the vehicle program as a change page or equivalent document for coordination and approval/concurrence by the original signing authorities (Requirement).

Note: For an ELS determination after approval of the tailored requirements document see paragraph 1.5.3 of this NPR.

1.4.6 If the Center range safety organization, NASA Range Safety Manager, or other range safety authority determines that proposed tailoring of a requirement (i.e., deletion of a requirement, a change to a requirement, or an approach that differs from the stated requirement) results in increased safety risk, the vehicle program shall prepare a waiver request and obtain approval per paragraph 1.6 of this NPR (Requirement).

1.4.7 In the event that an authority does not concur on a tailored requirements document and the issue cannot be resolved through coordination with the cognizant/designated SMA Technical Authority, all interested parties shall brief their position to the next higher level SMA Technical Authority and so on until resolved (Requirement).

1.5 Equivalent Level of Safety (ELS)

1.5.1 An ELS determination is a noncompliance with a range safety requirement where the cognizant range safety organization approves an alternate approach that provides an approximately equal level of safety as determined by qualitative or quantitative means. An ELS applies when the alternate approach satisfies both of the following conditions:

a. There is a high degree of certainty that the alternate approach will not increase the probability that Range Safety System hardware will fail, considering all required design environments; AND

b. The alternate approach will not add any single failure point(s) in Range Safety System hardware onboard the vehicle.

Note: The primary purpose of required redundancy in onboard range safety systems is to provide survivability (i.e., not necessarily reliability). Single failure points in onboard range safety system hardware directly affect the ability of the safety system to survive and function during a breakup failure scenario. Detailed range safety system requirements identify acceptable single failure points in onboard safety systems. In general, any additional single failure point will result in increased safety risk and is processed as a Range Safety Waiver per paragraph 1.6 of this NPR.

1.5.2 Each program shall ensure that ELS determinations made during the initial tailoring process are clearly identified in the tailored requirements document and that the document contains or references sufficient approval rationale for each ELS determination (Requirement).

1.5.3 For any ELS requested after approval of the tailored requirements document but

prior to commencement of the range operation:

1. The requesting program shall prepare a written ELS request that provides approval rationale (Requirement).

   Note: The NASA Range Safety Manager maintains the latest NASA Range Safety ELS request format and makes it available to all programs. Similar formats used at the various ranges are also acceptable.

2. The cognizant SMA Technical Authority(ies) and the vehicle program manager (or designee) shall approve (sign) the ELS after obtaining documented concurrence from the cognizant Center range safety organization or the NASA Range Safety Manager and any other authorities responsible for issues addressed by the ELS (Requirement).

1.5.4 If an ELS is approved in real time during a range operation, the requesting program, cognizant SMA Technical Authority(ies), and cognizant Center range safety organization or NASA Range Safety Manager shall ensure that a record of the ELS request, rationale, and approval is generated and maintained as part of the official operation records (Requirement).

Note: This may be accomplished in real time through the use of a recorded voice network and then documented, in writing, after the operation is complete.

1.5.5 Each Center range safety organization, the Center/Program Range Safety Representatives, the NASA Range Safety Manager, and the SMA Technical Authorities shall coordinate as needed to allow for consistent ELS determinations throughout the Agency (Requirement).

1.6 Range Safety Waiver Process

1.6.1 The following is a specific implementation of NASA policy for processing and approving waivers as they apply to range safety requirements. For the purpose of the NASA Range Flight Safety Program and this NPR, a Range Safety Waiver is defined as a written authorization allowing a range operation to continue even though a specific range safety requirement is not satisfied and the vehicle program is not able to demonstrate an equivalent level of safety. A Range Safety Waiver typically applies to a single mission but may have other limited applicability.

Note: NASA actively participates with the national range safety community in order to effectively conduct NASA range operations. It is necessary for the NASA Range Safety Waiver process to be consistent with the approach used at the national ranges. The range safety community only documents waivers in cases that involve the acceptance of increased risk (i.e., "Range Safety Waivers" always involve the acceptance of increased safety risk). The only other form of approved noncompliance with a range safety requirement is an ELS (see paragraph 1.5 of this NPR).

1.6.2 The requesting program shall coordinate each Range Safety Waiver request with the Center range safety organization or the NASA Range Safety Manager, the Center/Program Range Safety Representative(s), and any other cognizant range safety organization(s) to:

a. Ensure that the Range Safety Waiver request and accompanying data are correct and complete (including identification of appropriate risk mitigations) (Requirement).

b. Ensure that the risk is properly identified and characterized (Requirement).

c. Assess any effects the Range Safety Waiver might have on other projects, resources, or requirements (Requirement).

d. Ensure approval, concurrence, and risk acceptance by appropriate authorities (Requirement).

1.6.3 Prior to the affected range operation, the requesting program shall draft a written Range Safety Waiver request (Requirement). For real-time Range Safety Waivers, see paragraph 1.6.6 of this NPR.

Note: The NASA Range Safety Manager maintains the latest NASA Range Safety Waiver request format and makes it available to all programs (see http://kscsma.ksc.nasa.gov/Range_Safety/). Similar formats used at the various ranges are also acceptable.

1.6.4 Center/program Range Safety Representatives shall coordinate with all cognizant range safety organizations as soon as a potential noncompliance with a range safety requirement is identified (Requirement).

1.6.5 The Range Safety Waiver approval process shall incorporate the following:

a. The cognizant Center range safety organization or the NASA Range Safety Manager shall evaluate all Range Safety Waiver requests and provide input to the SMA Technical Authority(ies) and other approval authorities (Requirement).

b. The cognizant SMA Technical Authority(ies) shall sign each Range Safety Waiver indicating the risk is properly characterized and recommending acceptance (Requirement).

c. For any vehicle flown under the cognizance of a NASA range, the NASA Center Director (or NASA designee) responsible for the NASA range shall sign each Range Safety Waiver indicating consent to accept the associated risk to people or property (including public) (Requirement).

d. For a NASA range operation that does not involve a NASA or other United States Government range (e.g., an entry operation), the NASA Center Director (or NASA designee) that hosts the vehicle program shall sign each Range Safety Waiver indicating consent to accept the associated risk to people or property (including public) (Requirement).

e. The vehicle program manager (or designee) shall sign each Range Safety Waiver indicating acceptance of all safety risk associated with the waiver (Requirement).

Note: For non-NASA vehicles at a NASA range, the SMA Technical Authority(ies) and the Center Director/designee signatures (per paragraphs 1.6.5.b and 1.6.5.c of this NPR) constitute NASA approval of the waiver. The required NASA signatures are in addition to any local approvals required when utilizing a non-NASA range, such as approval by the Air Force Range Commander for launches utilizing an Air Force range. Such local approvals may be documented on the same waiver

document as the NASA signatures or on a separate equivalent document depending on local agreements and procedures.

1.6.6 If a Range Safety Waiver is approved in real time during a range operation, the requesting program and all cognizant range safety organizations shall coordinate to ensure that the requirements of paragraph 1.6.4 and 1.6.5 of this NPR are satisfied and that a record of the waiver request, rationale, and approval is generated and maintained as part of the official operation records (Requirement).

Note: This may be accomplished in real time through the use of a recorded voice network and then documented, in writing, after the operation is complete.

1.6.7 The Center range safety organizations, Center/program Range Safety Representatives, SMA Technical Authorities, and NASA Range Safety Manager shall coordinate as needed to allow for a consistent Range Safety Waiver approach throughout the Agency (Requirement).

1.6.8 In the event that a required signatory does not concur on a Range Safety Waiver and the issue cannot be resolved through coordination with the cognizant/designated SMA Technical Authority and the other required approval authorities, all interested parties shall brief their position to the next higher level authorities and so on until resolved (Requirement).

| TOC | Preface | Chapter1 | Chapter2 | Chapter3 | AppendixA | AppendixB | ALL |

| NODIS Library | Program Management(8000s) | Search |

DISTRIBUTION:
NODIS